

Claims:

1. A method for manufacturing cellulose carbamate, in which method an auxiliary agent and urea are absorbed into cellulose, and a reaction  
5 between cellulose and urea is carried out in a mixture containing cellulose, a liquid, the auxiliary agent, and urea, **characterized** in that the liquid content in the mixture is less than 40 %, advantageously less than 30 %, preferably less than 25 %, and most preferably less than 22 %.
- 10 2. The method according to claim 1, **characterized** in that the auxiliary agent is an alkalizing agent, such as sodium hydroxide.
- 15 3. The method according to claim 1, **characterized** in that the auxiliary agent is hydrogen peroxide.
- 20 4. The method according to any of the preceding claims 1 to 3, **characterized** in that the absorption of the auxiliary agent and urea up to the core of the cellulose fibre is enhanced and/or the reaction between cellulose and urea is performed at least partly by subjecting the mixture to mechanical working, preferably in such a way that the components of the mixture are subjected to working repeatedly.
- 25 5. The method according to claim 4, **characterized** in that the mixture is subjected to the working between two surfaces moving in relation to each other.
- 30 6. The method according to claim 5, **characterized** in that in the working, the mixture is pressed through openings in one of the surfaces, for example by performing the working in a sieve press (1).
- 35 7. The method according to claim 5, **characterized** in that the working is performed by running the mixture through a nip formed by two rolls (7, 8).
8. The method according to claim 7, **characterized** in that the surface of at least one of the rolls is provided with a grooving.

9. The method according to any of the preceding claims 5 to 8, **characterized** in that the same mixture is recirculated several times between the two surfaces moving in relation to each other.
- 5 10. The method according to any of the preceding claims, **characterized** in that more than 50 %, advantageously more than 70 %, preferably more than 90 %, and most preferably all of the liquid is water.
- 10 11. The method according to any of the preceding claims, **characterized** in that the auxiliary agent and an aqueous solution of urea, and possibly dry, powdery urea, are premixed into cellulose in such a way that the liquid substances are added in atomized form.
- 15 12. The method according to claim 11, **characterized** in that the premixing is performed in a fluidized bed mixer.
13. The method according to any of the preceding claims, **characterized** in that the processing time is less than 30 min, advantageously less than 20 min, preferably less than 15 min, and most preferably less than 10 min.
- 20 14. The method according to any of the preceding claims, **characterized** in that the cellulose is wood cellulose or dissolving pulp or cotton linters.
- 25 15. The method according to any of the preceding claims, **characterized** in that the cellulose is finely ground to a grain size of < 2 mm, preferably less than 1 mm and most preferably less than 0.7 mm.
- 30 16. The method according to any of the preceding claims, **characterized** in that during the working, the temperature of the mixture is adjusted by the circulation of an external heating or cooling medium.